

WHAT IS CLAIMED IS:

1. A method of controlling a printing apparatus which performs printing by using a printhead having a printing element and a storage unit, the printing apparatus including a first control unit which controls overall operation of the printing apparatus, and a second control unit which can operate independently of the first control unit, the method comprising:
 - an instruction generation step of causing the first control unit to generate an instruction for acquiring specific information from information held by the storage unit of the printhead;
 - an acquisition step of causing the second control unit to receive the control instruction generated by the first control unit in the instruction generation step, generate an address for accessing the storage unit of the printhead, access the storage unit at the address, and acquire the specific information corresponding to the instruction; and
 - a control step of causing the second control unit to drive and control the printhead on the basis of information which is generated on the basis of the information acquired in the acquisition step in order to drive the printhead.
2. The method according to claim 1, wherein the second control unit is arranged in a carriage which

supports the printhead, the printhead, or a printhead element base having the printing element and the storage unit in the printhead.

3. A printing apparatus which performs printing by
5 using a printhead having a printing element and a storage unit, comprising:

instruction generation means for generating an instruction for acquiring specific information from information held by the printhead;

10 acquisition means for receiving the control instruction generated by said instruction generation means, accessing the storage unit of the printhead, and acquiring the specific information corresponding to the instruction from the storage unit; and

15 control means for driving and controlling the printhead on the basis of information which is generated on the basis of the information acquired by said acquisition means in order to drive the printhead.

4. The apparatus according to claim 3, wherein said
20 control means includes

generation means for generating an access signal containing an address for reading out information specified by the instruction generated by said instruction generation means from the storage unit, and

25 read means for accessing the storage unit in accordance with the access signal generated by the generation means and reading out the specified

information.

5. The apparatus according to claim 4, wherein the generation means has, in correspondence with a plurality of types of printheads, a plurality of tables
5 which make pieces of information specified by the instruction and storage addresses of the storage unit correspond to each other, and generates the access signal by looking up a table corresponding to a printhead mounted on the printing apparatus among the
10 plurality of tables.

6. The apparatus according to claim 3, wherein said acquisition means is arranged on a carriage for conveying the printhead.

7. The apparatus according to claim 6, wherein said
15 acquisition means includes transmission means for transmitting the instruction to the printhead.

8. A printhead having a printing element and a storage unit, comprising:

a reception unit which receives an instruction
20 output from a printing apparatus supporting the printhead; and

a control unit which reads out specific information corresponding to the instruction received by said reception unit from the storage unit, and
25 outputs the specific information to the printing apparatus.

9. The printhead according to claim 8, wherein said

control unit includes

an address generation unit which generates an access signal containing an address for reading out information specified by the instruction received by said reception unit from the storage unit, and

a read unit which accesses the storage unit in accordance with the access signal generated by the address generation unit and reads out the corresponding specified information.

10 10. The printhead according to claim 9, wherein the address generation unit has a table which makes the information specified by the instruction and a storage address of the storage unit correspond to each other, and generates the access signal by looking up the
15 table.

11. The printhead according to claim 8, wherein the printhead includes an ink-jet printhead.

12. The printhead according to claim 11, wherein the ink-jet printhead comprises an electrothermal
20 transducer for generating heat energy to be applied to ink in order to discharge ink by using heat energy.

13. An element base for a printhead having a printing element and a memory, comprising:

a reception circuit which receives an instruction
25 output from a printing apparatus supporting the printhead; and

an output circuit which acquires specific

information corresponding to the instruction received by said reception circuit from the memory, and outputs the specific information to the printing apparatus.

14. The element base according to claim 13, wherein
5 said output circuit includes

an address generation circuit which generates an access signal containing an address for reading out information specified by the instruction received by said reception circuit from the memory, and

10 a read circuit which accesses the memory in accordance with the access signal generated by the address generation circuit and reads out the corresponding specified information.

15. The element base according to claim 14, wherein
15 the address generation circuit has a table which makes the information specified by the instruction and a storage address of the memory correspond to each other, and generates the access signal by looking up the table.

20 16. A method of controlling a printing apparatus including a printhead which has a printing element and supports an ink tank with a storage unit, a first control unit which controls overall operation of the printing apparatus, and a second control unit which can
25 operate independently of the first control unit, comprising:

an instruction generation step of causing the

first control unit to generate an instruction for
accessing the storage unit of the ink tank; and

an access step of causing the second control unit
to receive the instruction generated by the first
5 control unit in the instruction generation step,
generate an address for accessing the storage unit of
the ink tank, and access the storage unit at the
address.

17. The method according to claim 16, wherein in the
10 access step, write of information in the storage unit
of the ink tank and read of information from the
storage unit are performed.

18. The method according to claim 16, wherein the
second control unit is arranged in a carriage which
15 supports the printhead, the printhead, or a printhead
element base having the printing element and the
storage unit in the printhead.

19. The method according to claim 16, wherein
information stored in the storage unit of the ink tank
20 includes information on an ink discharge amount.

20. A printing apparatus which performs printing by
using a printhead having a printing element,
comprising:

an ink tank which is mounted in the printhead and
25 has a storage unit electrically connected to the
printhead;

instruction generation means for generating an

instruction for accessing the storage unit of said ink tank; and

access means for receiving the instruction generated by said instruction generation means, and

5 accessing the storage unit of said ink tank.

21. The apparatus according to claim 20, wherein said access means performs write of information in the storage unit of said ink tank and read of information from the storage unit.

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